

What is claimed is:

1. A header assembly for connecting a conductor
terminating at a body organ with control circuitry and
at least one electrical energy storage device of an
5 implantable medical device, the header assembly
comprising:

(a) a terminal connectable to a lead of the
conductor;

(b) a body supporting the terminal; and

10 (c) a first passageway extending into the body
leading to the terminal and a second passageway
extending into the body in communication with the
terminal and the first passageway.

2. A header assembly for connecting a conductor
15 terminating at a body organ with control circuitry and
at least one electrical energy storage device of an
implantable medical device, the header assembly
comprising:

(a) a first terminal having a first lead opening
20 sized to receive a first portion of a lead for the
conductor;

(b) a second terminal having a second lead opening
sized to receive a second portion of the lead for the
conductor;

(c) a body supporting the first and second terminals, wherein the body includes a first bore communicating from outside the body to the first and second lead openings aligned in a first co-axial relationship;

(d) a first passageway extending into the body leading to the first terminal and a second passageway extending into the body in communication with the first terminal and the first passageway; and

(e) a third passageway extending into the body leading to the second terminal and a fourth passageway extending into the body in communication with the second terminal and the second passageway.

3. The header assembly of claim 2 wherein the body further supports third and fourth terminals having third and fourth lead openings aligned in a second co-axial relationship along a second bore communicating from outside the body to the third and fourth terminals.

4. The header assembly of claim 3 wherein the first co-axial relationship of the first and second lead openings along the first bore is offset with respect to the second co-axial relationship of the third and fourth lead openings aligned along the second bore.

5. The header assembly of claim 2 wherein the body is of a polymeric material.

6. The header assembly of claim 2 wherein a threaded member is receivable in first and second apertures provided in the respective first and second terminals.

5 7. The header assembly of claim 6 wherein the second and fourth passageways are in communication with the first and second apertures in the respective first and second terminals.

10 8. The header assembly of claim 2 wherein the first bore is sized to receive a lead of the conductor in the first and second lead openings of the first and second terminals.

15 9. The header assembly of claim 2 wherein the first bore includes an annular channel supporting an O-ring for sealing about a lead of the conductor received in the first and second lead openings.

10. The header assembly of claim 2 wherein the electrical energy storage device is selected from a battery and a capacitor.

20 11. The header assembly of claim 2 wherein the medical device is selected from the group consisting of a hearing assist device, neurostimulator, cardiac pacemaker, drug pump and cardiac defibrillator.

25 12. The header of claim 2 wherein the first and second terminals are selected from the group consisting of a terminal block, a sleeve, a ring-shaped member

supporting a coil spring and a ring shaped member supporting at least one leaf spring.

13. A method for connecting an implantable medical device to a conductor terminating at a body organ
5 intended to be assisted by the medical device, comprising the steps of:

(a) providing the medical device having a housing comprising at least a first and a second wall portions mateable together to provide the housing;

10 (b) positioning control circuitry, at least one electrical energy storage device and at least one feedthrough wire nested in the first wall portion, the feedthrough wire extending from the control circuitry through the first wall portion of the housing to a
15 distal end of the feedthrough wire located outside the first wall portion, wherein the first wall portion is not mated to the second wall portion;

(c) molding a body of polymeric material supporting a terminal connectable to a lead of the
20 conductor, wherein the body further includes a first passageway extending into the body leading to the terminal and a second passageway extending into the body in communication with the terminal and the first passageway;

25 (d) positioning the body on the first wall portion of the housing with the distal end of the feedthrough

wire extending through the first passageway to contact the terminal;

(e) accessing the terminal through the second passageway to electrically connect the feedthrough wire
5 to the terminal;

(f) mating the second wall portion to the first wall portion to complete the housing for the medical device; and

(g) connecting the lead of the conductor to the
10 terminal.

14. A method for connecting an implantable medical device to a conductor terminating at a body organ intended to be assisted by the medical device, comprising the steps of:

15 (a) providing the medical device having a housing comprising at least a first and a second wall portions which are mateable together to provide the housing;

(b) positioning control circuitry, at least one electrical energy storage device and a first and a
20 second feedthrough wires nested in the first wall portion, the feedthrough wires extending from the control circuitry through the first wall portion of the housing to first and second distal ends of the feedthrough wires located outside the first wall

portion, wherein the first wall portion is not mated to the second wall portion;

5 (c) molding a body of polymeric material having a bore communicating from outside the body to first and second terminals, wherein the terminals include first and second lead openings aligned in a co-axial relationship, and wherein the body further includes a first passageway extending into the body leading to the first terminal and a second passageway extending into
10 the body in communication with the first terminal and the first passageway, and wherein the body further includes a third passageway extending into the body leading to the second terminal and a fourth passageway extending into the body in communication with the second
15 terminal and the third passageway;

(d) positioning the body on the first wall portion of the housing with the distal ends of the first and second feedthrough wires extending through the respective first and third passageways to contact the
20 first and second terminals;

(e) accessing the first terminal through the second passageway to electrically connect the distal end of the first feedthrough wire to the first terminal, and accessing the second terminal through the fourth
25 passageway to electrically connect the distal end of second feedthrough wire to the second terminal;

(f) mating the second wall portion to the first wall portion to complete the housing for the medical device; and

(g) moving the lead of the conductor into the bore
5 of the body with the lead received in the first and second lead openings aligned in the co-axial relationship.

15. The method of claim 14 including providing the housing having third and fourth feedthrough wires
10 extending from the control circuitry and through the first wall portion of the housing to respective third and fourth terminals having third and fourth lead openings aligned in a second co-axial relationship along a second bore communicating from outside the body to the
15 third and fourth terminals.

16. The method of claim 14 including providing the housing for the medical device comprising mating first and second clam shell housing portions closed by a lid.

17. The method of claim 14 including providing the bore
20 having an annular channel supporting an O-ring for sealing about a lead of the conductor received in the first and second lead openings of the first and second terminals.

18. The method of claim 14 including selecting the
25 electrical energy storage device from a battery and a capacitor.

19. The method of claim 14 including selecting the medical device from the group consisting of a hearing assist device, neurostimulator, cardiac pacemaker, drug pump and cardiac defibrillator.

5 20. The method of claim 14 including selecting the first and second terminals from the group consisting of a terminal block, a sleeve, a ring-shaped member supporting a coil spring and a ring shaped member supporting at least one leaf spring.

10 21. The method of claim 14 including providing the first and second terminals having respective first and second apertures in communication with the first and second lead openings and the respective second and fourth passageways.

15 22. The method of claim 21 including threading a threaded member into the first and second apertures of the respective first and second terminals to retain the lead in place.

20 23. The method of claim 14 including providing the first and second wall portions as mating first and second clam shell housing portions closed by a lid.